



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/702,466      | 10/31/2000  | Dennis Joseph Denen  | LLT-259-A           | 2542             |

26127 7590 07/11/2003

DYKEMA GOSSETT PLLC  
39577 WOODWARD AVENUE  
SUITE 300  
BLOOMFIELD HILLS, MI 48304-5086

EXAMINER

LEYKIN, RITA

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2837

DATE MAILED: 07/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/702,466

Applicant(s)

DENEN ET AL.

Examiner

Rita Leykin

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 11 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 18-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22-35 is/are allowed.
- 6) ☒ Claim(s) 18-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Amendment***

This office action is in response to amendment, filed on June 11, 2003.

Applicant's arguments have been fully considered, but found not persuasive.

With respect to claim 18, it is the examiner position that all claimed limitations are present in the prior art by Takahashi US # 4,925,424 in combination with Yamashita et al. US # 4,855,652.

Applicant is claiming a control and motor arrangement for model toy train provided by motor configured to generate a locomotive force for propelling a model train. This limitation is met by Takahashi, wherein the toy device is provided with motion producing device, such as an electric motor, (see abstract).

The second limitation is related to rotational position information that is detected by transducer. Yamashita et al. meet that limitation in disclosure of a speed control apparatus for an electric motor. Wherein, based on detected position from the position sensor 8, signal 14 is affecting the output 19, from microcomputer 6.

The third limitation is directed to a control arrangement that is coupled to position transducer and arranged to cause power applied to the motor at different times based on the position transducer signal. In Yamashita's et al. teaching AC power supply 1 is connected to an inverter 4 through a rectifier circuit 2, and a step-up chopper 3, and condenser 34. One of the components of Yamashita et al. disclosure is control of the power supplied to the motor. In Fig. 2 Yamashita et al. provided waveforms of voltage and current that can be obtained via power source current controller 11 and step-up

Art Unit: 2837

chopper circuit 3. The magnitude of the power supply current is controlled and corresponding to the current instruction signal 19, which is the output from the microcomputer 6 that is affected by position transducer 8, (see column 3, lines 10-67). Based on the above the examiner maintains the previous rejection.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi US # 4,925,424 and Yamashita et al. US # 4,855,652.

With respect to claims 18 and 19, Takahashi discloses a toy vehicle and track, wherein the track defines a pre-selected pathway.

The toy vehicle has a motion-producing device such as an electric motor for providing movement characteristics of the toy vehicle on the track in response to receipt of a motion control signal. Wherein, the motion producing device, in response to motion control signal may vary the speed or direction of the toy vehicle and in addition may vary the time duration of speed or speed changes, (see abstract and column 1, lines 10-68 through column 2, lines 1-50).

Takahashi does not disclose transducer operative in providing rotational position information being characteristic of rotational position of wheels at which the motor is operating. Takahashi also does not disclose a control arrangement, coupled to the transducer to receive the rotational information and to cause the power to be applied to the motor at different times based on information provided by the transducer.

However, such control arrangement is known from the Yamashita et al. speed control apparatus for a brushless dc motor.

In Fig. 1 Yamashita et al. disclose a control circuit for controlling the speed of the synchronous motor 5 that comprises:

- A microcomputer 6 interconnected with position detection circuit 8 for detecting a magnetic pole position of a rotor 51;
- An inverter 4;
- An inverter driver 91 for outputting driving signals to power transistors TR1-TR6, which constitutes the inverter 4;
- A power supply current controller 11 for controlling a magnitude of power supply current 10;

One of the program that microcomputer 6 provided is a program of speed control involving the synchronous motor 5, the position detecting signal 14 output from the position detecting circuit 8 and a speed instruction signal 15. And which enables outputting of inverter drive signal 18 to the inverter driver 91 and processing of a current instruction signal 19 to a power supply current controller 11. By changing ON and OFF

Art Unit: 2837

times of the transistor 32, the instantaneous magnitude of the power supply current 10 can be changed.

With respect to claims 20 and 21 In Fig. 9 Takahashi shows a speaker 25 wherein, the sounds emitted by speaker may correspond to the particular operational characteristic of the vehicle including motion control signal, at any instant of time, (see column 9, lines 53-56 and column 12, lines 1-4).

Hence, it would have been obvious to one having ordinary skill in the art at the time the invention was made to control motor operated toy-train as in Takahashi, by applying Yamashita et al. teaching on motor power application, based on detected at different times rotor position, in order to control the speed of toy-train motor.

The reason is to achieve motion of the toy-train according to the designed scenario.

### ***Allowable Subject Matter***

2. Claims 22-25 and 26-35 are allowed.
3. The following is a statement of reasons for the indication of allowable subject matter. With respect to claims 22-25, claims are allowed based on amendment to previously objected claim 22. With respect to claims 26-35 see previous office action.

### ***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rita Leykin whose telephone number is (703)308-5828. The examiner can normally be reached on Monday-Friday 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Nappi can be reached on (703)308-3370.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

Rita Leykin  
Primary Examiner  
Art Unit 2837



R.L.  
July 7, 2003